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Geography in the United Kingdom 1968-72: Report to the 22nd International Geographical Congress at Montreal, Canada, in August 1972
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Source: *The Geographical Journal*, Vol. 138, No. 2 (Jun., 1972), pp. 139-153
Published by: geographicalj
Stable URL: http://www.jstor.org/stable/1795958
Accessed: 25-06-2016 09:19 UTC

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GEOGRAPHY IN THE UNITED KINGDOM 1968-72

REPORT TO THE 22nd INTERNATIONAL GEOGRAPHICAL CONGRESS AT MONTREAL, CANADA, IN AUGUST 1972

ROBERT W. STEEL and J. WREFORD WATSON

This report surveys the developments in British geography and the work of British geographers and will be presented to the 22nd International Geographical Congress to be held in Canada in August 1972. Information has been supplied by over 50 departments of geography in universities and polytechnics about their staffing, teaching, research and publications, and geography is shown to be next to mathematics and English in the demand for student places. The authors' assessment is complicated by the growing diversity and complexity of the subject and by the great increase in the numbers of professional geographers and of postgraduate and undergraduate students, and by the different ways in which the study of geography is organized in a variety of faculties while research is financed by two different Research Councils as well as by the universities themselves. While the increasing use of quantitative methods can be observed nearly everywhere, it is noted that there is still an emphasis on the quality of description for the portrayal of regions and landscapes. The report's conclusion is that all the evidence suggests that geography is still showing marked expansion and, while covering all the main aspects of the subject, British geographers are also actively exploring new frontiers of geographical thought.

FOR THE 19TH INTERNATIONAL GEOGRAPHICAL CONGRESS held in Stockholm in 1960, a report on 'Geography in Great Britain 1956–60' was prepared by K. C. Edwards and G. R. Crone (1960). Changes in professorial posts, the increasing involvement of geographers in governmental work, the establishment of new organizations, and research completed and in progress were noted, together with a representative selection of publications and a summary of the activities of the principal British geographical societies and institutions. There was no comparable report on the developments of the inter-Congress period that culminated in the 20th International Geographical Congress in London in 1964. Much was published, however, on many different aspects of the subject in the host country, including a volume of essays on the British Isles edited by J. Wreford Watson with J. B. Sissons (1964) and a paper by G. R. Crone (1964) on 'British geography in the twentieth century' which surveyed six decades that had seen 'the development of a great organized body of geographical knowledge, the emergence of a large number of trained geographers, and a recognition of the role which geography can play in education and in the wider national life'. During the Congress and the associated symposia and field excursions geographers from all over the world had many opportunities of observing at first hand the way in which the subject had progressed in Britain.

➔ Professor R. W. Steel is Head of the Department of Geography in the University of Liverpool and Professor J. Wreford Watson is Head of the Department of Geography in the University of Edinburgh. They were invited to prepare this report by the annual conference of the Heads of Departments of Geography in British universities and have undertaken it on behalf of the Royal Society's British National Committee for Geography. While the authors bear joint responsibility for the final report, Professor Steel has concentrated on the research and publications of British geography during the period under review (Part I) and Professor Watson on the analysis of university syllabuses (Part II).

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At the New Delhi Congress in 1968 no British report was presented, and so this account, while concentrating on the 1968–72 quadrennium, does attempt to note certain features of the years before 1968, particularly those that appear to have influenced later events. The authors hope that the British National Committee for Geography will ensure that in future there are reports on each inter-Congress period. Apart from the topical and immediate interest that such reports may arouse at successive Congresses, they could be invaluable for those who attempt to survey the progress of British geography over longer periods, after the manner of Crone's overall view of British geography during the twentieth century at the time of the London Congress of 1964 (Crone, *op. cit.*).

The authors of this report have been very conscious of their difficulties, both because of the tremendous volume of information now available and because of the increasing complexity of the subject in all its many branches. The number of institutions of higher education where geography is taught has almost doubled since the mid-fifties while an indication of the increase in the number of professional geographers, and those interested in the advancement of the subject, is suggested by the increase in the total membership between 1960 and 1972 of the Geographical Association from a little more than 5000 to about 8500 and of the Institute of British Geographers from 600 to nearly 1550. Our task has, therefore, been considerable and difficult, and we apologize for any serious omissions and mis-statements for which we may have been unconsciously responsible. We regret that we could not make more use of much of the information so willingly supplied to us from many different sources. Our hope is that we may have succeeded in conveying to our colleagues in Britain and elsewhere something of the state of British geography in the early months of 1972.

I. RESEARCH AND PUBLICATIONS

Surveying the research being undertaken in more than 50 departments of geography and the resulting literature presents many problems, especially in fields where much more is happening today than in the not very distant past. Departments have generously supplied a mass of information about their activities which, unfortunately, cannot be sensibly quantified, while the provision of long lists of research topics or of published papers would be tedious. All that can be offered is the overall view of two individuals who have tried to assess the significance of some of the diversity and complexity of the British geographical scene today.

The work undertaken in many university faculties of science and engineering shows a marked tendency towards concentration and specialization, but research in most British geographical departments is still primarily based upon the individual or group of individuals. In places there is evidence of the influence of substantial research grants for particular programmes, but only rarely are they large enough to sway the research activities of whole departments. Departments are, moreover, generally of a size where considerable specialization in teaching as well as in research is permissible to individual members of staff without unduly affecting the overall, balanced view of the subject that many would argue all honours geography undergraduates should receive. Thus there is much more specialist teaching today than ever before, and consequently further research in many different fields in and around geography is encouraged. Yet the universities and polytechnics of which the departments form a part are generally more concerned with the subject as a whole than with particular specialisms; their key appointments are of able men and women, irrespective of their research interests within the subject. Thus H. C. Darby, an historical geographer, was appointed to the headship of the

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department at Cambridge whose previous professors had both been physical geographers (F. Debenham and J. A. Steers). Where second and, more rarely, third chairs have been instituted, universities have sometimes attempted to maintain a physical geography/human geography balance as at Aberdeen, Bristol, Exeter, and King's College, London, with the appointments of R. E. H. Mellor, P. Haggett, A. Straw and W. B. Morgan respectively. Elsewhere, however, new appointments have often been made in fields not dissimilar to those of the professor already in the post as with J. T. Coppock (Edinburgh), S. Gregory (Sheffield), and R. Lawton (Liverpool). A welcome tendency in several universities has been a willingness to elect geographers to personal professorships and readerships, while the general contribution of senior geographers to the lives of their universities has been recognized by several appointments as pro-vice-chancellors, vice-principals, deans of faculties and proctors, and as senior tutors and bursars of colleges.

The all-round growth in the size of departments in universities, polytechnics and colleges of education, the development of new courses, the expansion of the subject in many diverse and often apparently disparate directions, and the dramatic increase in the numbers of teachers involved in higher education have all been reflected in the tremendous upsurge in the volume of publications by geographers in geographical journals and elsewhere. These papers, monographs and books are in themselves an indication of the research that has been undertaken or is in progress at the present time and of the larger sums of money now available for research by geographers.

Research in British departments of geography is financed by the limited funds channelled through the University Grants Committee (the major source of finance for all British universities), occasional grants obtained from British, American and other foundations, and the money made available by two of the British Government's research councils—the Natural Environment Research Council (NERC), first established in 1965 and responsible in broad terms for research in physical geography, and the Social Science Research Council (SSRC) instituted in 1966. Human geography was admitted to the work of the SSRC in 1967 following representations to the chairman of that Council by a small group of interested geographers. The joint committee for human geography and planning, established under the chairmanship of M. D. I. Chisholm initially and since 1972 of J. W. Watson, has year by year provided an increasing number of research studentships for recently qualified graduates but perhaps its greatest impact has been in the provision of grants to established workers in different branches of human geography. It would be difficult to exaggerate the significance of this new development or the encouragement that it has given to research, especially in the applied field. By contrast, NERC's involvement with physical geography as such has been generally disappointing, notwithstanding a meeting between the heads of all departments of geography and members of the Council in 1970. There is no committee specifically charged with the support of physical geography, and unlikely to be one, since NERC functions more in terms of fields of research than of specific academic disciplines. There has, however, been generous NERC support for the Experimental Cartography Unit in London, and K. M. Clayton of the School of Environmental Sciences in the University of East Anglia was appointed a member of the Council in 1971.

In Part II of this report the move away from regional geography in many departments is noted, and certainly many geographers now seem more concerned with process than with place—and sometimes, it would seem, more with statistical manipulation than with environmental reality. Yet despite these tendencies, which are

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more marked in some universities than in others, many are still very much involved with regional studies both in relation to continental-sized areas and also in the context of the analysis of the problems of their own home regions. Of particular significance is the development of activity in the field of inter-disciplinary 'area studies', for the furtherance of which substantial sums of money became available as a result of the recommendations of two special committees established by the University Grants Committee under the chairmanship of Sir William Hayter and Professor J. H. Parry. As a result, centres were set up in a selection of universities that were specifically devoted to the study of areas in Africa, Latin America, the Middle East and elsewhere that had hitherto been generally neglected by British academics. Three of these centres are directed by geographers—the Middle East Centre at Durham (H. Bowen-Jones), the South Asian Centre at Cambridge (B. H. Farmer), and the Latin-American Centre at Liverpool (C. T. Smith). But geographers are also intimately associated with most of the other centres, including those at Birmingham (West Africa), Cambridge (Africa), Edinburgh (Africa), Hull (South-east Asia), Leeds (China), Oxford (Near and Middle East), and Sheffield (Japan); the variety of institutions in the University of London with area interests, notably the School of Oriental and African Studies (now with a department of geography with two professors) and the Institute of Latin-American Studies; and the remaining Parry Latin-American centres at Cambridge, Oxford and Glasgow. Among individual departments of geography that are not linked with centres are the King's College/London School of Economics joint school and the Liverpool department, with marked concentrations of experts on Africa. Indeed British geography departments now have about 50 staff members with recent experience of teaching in tropical African universities, and geographers form the second largest group in the African Studies Association of the United Kingdom whose three principal officers in 1970–71 were all geographers. The departments at Dundee, Edinburgh, Keele, Nottingham and Swansea are associated with schools of American studies.

Many groups of geographers with similar regional interests generate a fair number of regional textbooks and monographs. In the developing world, for example, there were important books on both Africa (e.g. Kay, 1967 and 1970; Morgan and Pugh, 1969; Thomas and Whittington, 1969; Prothero, 1969; Hoyle and Hilling, 1970) and on Latin America (Blakemore and Smith, C. T., 1971). In a very different part of the world, concern with the probable increased involvement of Britain with its neighbours in the European Economic Community resulted in books (e.g. Parker, 1968) and atlases (Clayton and Kormoss, 1971).

A valuable British geographical tradition—the study of the home region in the field and in other ways—has not only been continued but has in practice been considerably extended through geographical membership of regional economic planning councils, close collaboration with local authority planning departments (themselves normally large employers of geography graduates), and consultancy work in many different fields. Perhaps the association is especially close in Scotland, Wales and Northern Ireland but there are also many examples of work by geographers in England, as in official studies such as *A strategy for the South East* (HMSO, 1967), the publications of the Newcastle Department of Geography (e.g. Fullerton and Bullock, 1968; Lavery, 1971; Newton, 1971) and the interdisciplinary project on Merseyside financed by the Social Science Research Council (Lawton and Cunningham, 1970). Several volumes about particular areas appeared, including new volumes in the 'Regions of Britain' series (e.g. Shorter, Ravenhill and Gregory, 1968), the first books of a new series, 'Industrial Britain' (including Smith, D. M., 1969; House, 1969; Humphrys, 1972); and two volumes on Wales and

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Ireland in 'The World's landscapes' series (Emery, 1969; Orme, 1970); while R. Millward and A. H. W. Robinson jointly wrote several volumes introducing various regions of England (Millward and Robinson, 1970, 1971a, 1971b, 1971c).

Publications in the field of geomorphology, possibly as much affected by the use of quantitative methods as any branch of the subject, have varied from those concerned with the evolution of thought over a long period of time (e.g. Chorley, Dunn and Beckinsale, 1964) to the applications of new methods (e.g. King, 1966) and the concept of a systems approach to the whole range of physical geography (Chorley and Kennedy, 1971), while reviews of specific fields or areas have presented much new material (Embleton and King, 1968; Pitty, 1971; Small, 1971).

Climatology similarly reflects many of the new approaches to its study as in R. G. Barry and R. J. Chorley's *Atmosphere, weather and climate* (1968) or in *Concepts in climatology* by P. R. Crowe (1971), a pioneer in the use of statistical methods in the handling of climatic data. Further innovations in climatological study are likely to result from the establishment in the School of Environmental Sciences in the University of East Anglia of a climatological unit directed by H. H. Lamb, formerly of the Meteorological Office.

Biogeography has benefited particularly from developments in the Schools of Environmental Studies in the Universities of East Anglia and Lancaster and the New University of Ulster as well as from encouragement in departments of geography, usually in close association with ecologists and botanists. Emphasis has been placed upon the application of the ecosystem concept and on methods of community description and analysis (e.g. Stoddart, 1965; Morgan and Moss, 1965; Moss and Morgan, 1967; Tivy, 1971; Watts, 1971) and concern has been shown for problems of environmental deterioration and pollution and the need for conservation. S. R. Eyre followed up earlier work on vegetation with a survey of world vegetation types (1971). D. R. Stoddart has made several visits to coral reefs at the request of the Royal Society and has produced important papers notably on the reefs of Aldabra (1967) and other islands.

Problems of research in human geography were highlighted in a pamphlet published by the SSRC's human geography committee (Chisholm, 1971) while new approaches were suggested and new problems posed by Haggett (1965), Harvey (1969) and others. Progress has been least marked in political geography despite work by C. A. Fisher (1968), J. R. V. Prescott (1972) and others. The common division between economic and social geography has sometimes become rather unreal, especially as research in these branches becomes increasingly problem-orientated, and as similar statistical bases are sought and the same type of methods of analysis employed. Changes in economic geography have been particularly rapid and an elaborate theoretical framework has been evolved, and this is reflected in much of the literature (e.g. Chisholm, 1966; Smith, D. M., 1971): yet there is still much that is not wholly different from what has been studied in the past in some recent volumes of the notable series of 'advanced economic geographies' edited by R. O. Buchanan (e.g. Warren, 1970; White and Gleave, 1971; Coull, 1972) or in studies of agricultural problems (e.g. Grigg, 1970; Morgan and Munton, 1971). In social geography the focus is on the processes that condition the spatial patterns of social groups, and studies have become increasingly sophisticated as geographers have worked more and more closely with demographers, sociologists and social analysts and noted the relevance (or otherwise) of some of the sociological theories in relation to both urban and rural communities that have been developed elsewhere, particularly in the USA (Robson, 1969; Smailes, 1972).

Much of the socio-economic research being undertaken is essentially 'applied

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geography'. The important part played by geographers in planning during the period since the establishment of a planning ministry in Britain in 1943 was surveyed recently by E. C. Willatts (1971), himself a pioneer worker in this important field. Geographers are also cooperating with official bodies such as the Countryside Commission, the Nature Conservancy and the Sports Council. The nature of their concern is indicated in a variety of books such as J. T. Coppock's account of British agriculture (1971), J. A. Patmore's survey of land and leisure (1970), the study of regional variations in Britain by B. E. Coates and E. M. Rawstron (1971), and the volume of population maps of the British Isles brought together and edited for the Population Studies Group of the IBG by A. J. Hunt (1968). Practical involvement in national affairs was experienced by E. Brooks (Liverpool), who was MP for Bebington from 1966 until 1970, and by N. J. Spearing, a Cambridge-trained geographer, elected MP for Acton (London) in 1970.

Historical geography—perhaps less appreciated in some quarters than it was—was represented by several important works including re-issues in revised forms of two of the Domesday geography series (Darby, 1971; Darby and Terrett, 1971); a study of the rural landscape of the Welsh Borderland (Sylvester, 1969); a general study of the historical geography of Western Europe (Smith, C. T., 1967); and detailed studies of the Netherlands (Lambert, 1971) and France (Clout, 1972). R. E. Dickinson's *The makers of modern geography* (1969), despite its title, was concerned only with 'foremost German and French geographers'; a later volume will, it is understood, discuss British geographers, some of whose work has been considered by E. W. Gilbert in his *British pioneers in geography* (1972).

A report of this nature is not the place to discuss the virtues of the so-called 'old' geography or the challenges of the 'new' or to assess the significance of the 'revolutions' in geography, whether quantitative, theoretical or otherwise. These inquiries are better done by reference to recently published books such as *Trends in geography* (ed. Cooke and Johnson, 1969) or R. Minshull's *The changing nature of geography* (1970). In retrospect and in perspective what has been described as the 'quantitative revolution' may represent nothing more than the proper adoption by geographers of new techniques that are commonly used by other natural and social scientists. This has greatly affected the literature and the research of geographers just as it has influenced the teaching in many British departments of geography, as is shown in the second section of this report. The Madingley lectures for 1963, *Frontiers in geographical teaching* (ed. Chorley and Haggett, 1965), represent the first major impact of the application of quantitative methods to the understanding of geographical problems though a standard geographical text on statistical methods (Gregory, 1963) had already been published. Other works by both these writers, with or without other collaborators, have followed in a steady stream (e.g. Haggett, 1965; Chorley and Haggett, 1967; Chorley and Kennedy, 1971); the reader of the latest of these books is supplied with a three-page list of statistical symbols at the beginning and a fourteen-page glossary at the end. The study and application of quantitative methods were the subjects of books by several authors (King and Cole, 1968; Doornkamp and King, 1971; Theakstone and Harrison, 1970) while a new publication *Progress in geography* provides reviews of current research in selected fields (Board *et al.*, 1970). There is a tendency to stress the contrast between the approaches and methods of the second half of the sixties and all that went before it: but such a view could be short-sighted and ignore the importance of the sound foundations and developing traditions of a subject that has a long and honoured history. A common viewpoint, at least among more experienced British geographers, is that expressed by the editors of a new series,

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the 'Field of geography': 'Between the "old" and the "new" geographies there is no clear division. There is indeed a wide spectrum of ideas and opinions concerning the development of teaching in geography' (Morgan and Pugh, 1971). The central concerns of geographers remain the same—the analysis of man/land relationships and of spatial patterns—even if the emphasis in study has changed from the description of the unique to generalization based upon the formulation and testing of hypotheses.

All in all, the upsurge in publication by British geographers has been remarkable. The journals of all the learned societies have grown in size despite tremendous increases in printing costs, and many papers by geographers have appeared in journals to which in the past the geographical contribution has been slight. Publishers generally seem much more aware of the potential of geographers—and of the opportunities of the market—than used to be the case, although many of them still look, understandably enough, with more favour on the textbook that may prove to be a best-seller than on the scholarly monograph for which there is unlikely to be a very large demand. Geographers still find it harder to find a publishing outlet than students of many other disciplines, and in consequence some university departments have started their own research series in which new volumes appear either regularly or spasmodically, including Durham, Liverpool, Newcastle, Sheffield and Southampton. Some University Presses have also embarked on the production of series under editorial boards with geographer representatives: these include the Cambridge University Press series of geographical monographs, of which three have so far been published (Robson, 1969; Timms, 1971; Carson and Kirkby, 1972), and the geographical publications programme announced by the Oxford University Press.

But however reluctant publishers may be to accept manuscripts on particular topics from individual scholars, some are prepared to publish volumes designed to celebrate special events as well as *Festschrift* volumes in which appear a number of papers from a variety of authors associated in different ways with the individual being honoured. Of the former, two have been published: *Liverpool essays in geography: a jubilee collection* (Steel and Lawton, 1967) to mark the fiftieth anniversary of the establishment in Liverpool in 1917 of the John Rankin Chair of Geography and of the first honours school of geography in any British university; and *Geography in Aberystwyth* (Bowen, Carter and Taylor, 1968) to celebrate a year later the similar occasion relating to the Gregynog Chair of Geography and Anthropology and honours schools instituted in both the faculties of arts and of science in the University College of Wales. Volumes presented to retiring geographers have included those in honour of Austin Miller (Whittow and Wood, 1965), J. A. Steers (*Orford Ness,* 1966), E. W. Gilbert (Beckinsale and Houston, 1968), E. G. Bowen (Carter and Davies, 1970), K. C. Edwards (Osborne, Barnes and Doornkamp, 1970), E. Estyn Evans (Stephens and Glasscock, 1970), Arthur Davies (Gregory and Ravenhill, 1971) and S. J. K. Baker (Ominde, 1971). The Institute of British Geographers is following its memorial volume to Sir Dudley Stamp (IBG Special Publication no. 1, 1968) with one concerned with geomorphology in memory of D. L. Linton, in whose honour a volume is also in course of preparation in the University of Birmingham.

Two other publications deserve special mention in this review: the *Geographical Magazine* and *Geo Abstracts.* The *Geographical Magazine,* although published commercially each month, devotes part of its profits to a fund administered by a board of trustees whose chairman is the president of the Royal Geographical Society. Under the editorship of Derek Weber it has latterly drawn increasingly

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upon professional geographers for its authors, and its circulation at the end of 1971 was nearly 74 000, representing a growth of over 12 000 in the year. *Geo Abstracts* provides a remarkable example of large-scale abstraction of papers published in a tremendous variety of periodicals. It is produced six times a year from the University of East Anglia under the inspiration and guidance of K. M. and Jane Clayton. *Geographical Abstracts* began to appear in 1960: *Geo Abstracts* dates from 1966 and now consists of six parts: (A) landforms and the Quaternary; (B) biogeography and climatology; (C) economic geography; (D) social geography and cartography; (E) sedimentology; and (F) regional and community planning. Because of the wide coverage provided, thousands of papers that are potentially useful to geographers are abstracted, the editors' claim being that 'everything relevant that we receive is abstracted in order to make our coverage as complete as possible'.

Several important atlases have been produced by geographers as distinct from those prepared by cartographic institutes and firms. Among these have been a second edition of the *National atlas of disease mortality in the United Kingdom* (Howe, 1970), the *Atlas of London and the London region* (Jones and Sinclair, 1968 and 1969), an atlas showing population changes in the Yorkshire and Humberside Planning Region (Symes, Thomas and Dean, 1968), and the first volume of the atlas of *Historic towns* (Lobel, 1969). Computer-mapping techniques were used for an atlas of the West Midlands (Rosing and Wood, 1971). Numerous 1:25 000 maps were published for the Second Land Utilisation Survey of England and Wales, directed by Alice M. Coleman.

A very important event for the progress of geography was the reorganization of the British National Committee for Geography set up in 1920 by the Council of the Royal Society in its capacity as the national adhering organization to the International Geographical Union. The committee was reconstituted from the beginning of 1970 with a widened professional membership allowing a larger representation from all the national geographical societies along with representatives of the Royal Society (the supreme national body for scientists) and of relevant government departments and, for the first time, of the British Academy (the spokesman for the humanities and social sciences in Britain). It is now involved in many matters affecting geographers besides those related to international conferences; it also administers the funds available for research through the 20th International Geographical Congress Fund and works closely with the trustees of the Dudley Stamp Memorial Fund. Its cartography sub-committee has compiled two booklets, *Glossary of technical terms in cartography* (1967) and *Education in cartography in the United Kingdom* (1969), and with other bodies helped to formulate the plans that have been accepted by the Department of Education and Science for the systematic training of cartographers in university departments of geography and in other similar institutions.

The Royal Geographical Society's membership remained constant at about the 7000 mark, and each year the *Geographical Journal* has been rather more than 600 pages long. The Society has maintained its traditional sponsorship of expeditions, large and small, with three of special importance: the South Turkana (Kenya) Expedition of 1968–70, the Xavantina-Cachimbo (Mato Grosso, Brazil) Expedition of 1967–69 (jointly with the Royal Society) (Smith, A., 1971), and the Musandam (Northern Oman) Expedition of 1971–72. Among its publications were reproductions of early maps and new maps of western Nepal (Kanjiroba Himal), Gulf of Aden (bathymetry) and southern Guyana, and a research monograph edited by C. W. Phillips on *The Fenland in Roman times* (1970).

Among the activities of the Royal Scottish Geographical Society has been the

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institution of an annual bulletin for secondary school teachers on current developments relevant to the study of the geography of Scotland. As custodian of the recently established Guthrie Fund the RSGS has also given support to the participation of young Scots in field expeditions of geographical significance.

The Geographical Association grew steadily in membership throughout the period and reached nearly 8500 in 1970–71. Overseas field excursions and summer schools have become regular features of its programme besides the organization of conferences and the publication of its quarterly journal *Geography*. Among the Association's other publications were several new booklets in the series, 'British landscape through maps', of which over 135 000 copies have now been sold, and a new series, 'Teaching geography', designed to cover aspects of geography that would, like the handbooks *Geography in primary schools* (1970) and *Geography in secondary education* (1971), be of special help to teachers in schools.

The Institute of British Geographers has grown very notably in size and in standing since the London Congress of 1964. By 1972 it had 1546 members, all professionally engaged in geography with a majority in higher education. It now has a central office in the Royal Geographical Society's House and works in close collaboration with other professional associations and with government institutions such as the Registrar General's Office. It has greatly extended its external contacts through the institution of guest lectures at its annual conferences and by invitations to several young European geographers to attend each conference. It has continued to organize seminars with other geographers in Poland and elsewhere, and has done the same in Britain in collaboration with the SSRC and the Royal Geographical Society. Publication remains a very important side of the Institute's activities; in a normal year the *Transactions*, now appearing three times annually, runs to more than 600 pages, while *Area*, a periodical featuring news and views together with reports of research groups and conferences, is published quarterly. In most years a volume is also issued in its *Special publications* series. The first of these, the memorial volume to Sir Dudley Stamp, *Land use and resources: studies in applied geography*, appeared at the time of the New Delhi Congress in 1968; the fourth, on polar geomorphology, will be published in July 1972, shortly before the Montreal Congress.

Geographers have always played a prominent part in the organization of the Annual Meetings of the British Association for the Advancement of Science, and in most cases they were responsible for the editing of, and for important contributions to, the large and well-illustrated handbooks that were specially prepared for meetings at Southampton (Monkhouse, 1964), Cambridge (Steers, 1965), Nottingham (Edwards, 1966), Leeds (Beresford and Jones, G. R. J., 1967), Dundee (Jones, S. J., 1968), Exeter (Barlow, 1969), Durham (Dewdney, 1970) and Swansea (Balchin, 1971).

British geography suffered grievous losses by deaths during the period, including some who had been pioneers in the development of geography at a time when it was less accepted as a university discipline than it is in the seventies. Among those who died were Frank Debenham and J. F. Unstead in 1965; Andrew C. O'Dell, Eva G. R. Taylor and L. Dudley Stamp in 1966; A. Austin Miller in 1968; H. J. Fleure, R. H. Kinvig, J. H. G. Lebon and R. Kay Gresswell in 1969; A. E. Moodie and R. A. Skelton in 1970; and David L. Linton and J. N. L. Baker in 1971.

II—THE GEOGRAPHY CURRICULUM IN BRITISH UNIVERSITIES

Geography is strongly represented in British universities and polytechnics, colleges of advanced technology, and colleges of education. Since most universities

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recruit their students in common through UCCA (Universities Central Council on Admissions) it is possible to estimate the pressure for University places generated by geography.

	1970–71	1969–70	1968–69	1967–68
Mathematics	6041	5453	5212	4681
English	5897	5747	5408	4523
Geography	4432	4310	4209	4169
History	3809	3589	3517	3391
Economics	3417	3551	3346	4070

Thus for the last four years geography has been one of the subjects most in demand, coming behind mathematics and English, but ahead of other humanities, sciences and social studies. As a result geography departments have grown to be amongst the biggest departments—in some instances they are the biggest—in British universities, graduating between 50 and 100 honours students each per year; few now graduate less than 25 per year. This has meant several significant developments, including substantially more members of staff per department with distinctly more readerships and professorships, a wider range of courses taught, more joint honours degrees with other departments, a spread into science and social studies faculties in addition to faculties of arts, and much more postgraduate and other research work.

The pressure created by geography has led to degrees in geography at polytechnic institutes and to a major expansion in geography teaching for the BEd degree in colleges of education. In these centres, and at universities, experiments are going on to link geography with other subjects in departments (or in inter-departmental programmes) of environmental studies, social studies, area studies, science studies, and planning. Thus geography is expanding its impact throughout higher education and is preparing people for an ever-widening range of careers. School-teaching and town-planning are important outlets and account for about a third each of the geography graduates from many universities. Environmental research and management, government research and administration, and finance and business are now taking an increasing number of geography trainees from all universities, and from a few the greater number of geography graduates enter one or other of these careers. During the last four years many geography graduates have moved up into senior positions in universities and other educational institutions and as administrative officials in government departments. In these ways, geography has come into its own in its power to shape decisions at the highest level.

An analysis of the position of geography in British universities, polytechnics and colleges of advanced technology is offered here on the basis of returns from most of these institutions. A questionnaire was circulated asking for information about their undergraduate and postgraduate work. This was done mainly in terms of their curricula, so as to establish the main fields of teaching and research, and find out in what ways geography was represented in the university or college structure. The questionnaire asked, for example, what kinds of degree departments offered, in which faculties, what was their geographical coverage, what special interests they claimed, and what relations they had developed with other departments, together with details about student registrations. The results seem to show a distinct broadening of the geographical front in recent years throughout the university and college community with more fields of interest, more options for both staff and students, and more connections with other subjects in areas of common advance. In all 52 institutions cooperated, representing 95 per cent of the possible coverage.

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All departments are based on 'honours' courses. However, 56 per cent also have courses for students graduating with general degrees. Perhaps it is most significant that 44 per cent do not offer general degree work at all but concentrate on honours courses: this is particularly true of England and Wales. In Scotland general (or 'Ordinary') students far outnumber honours students, though the honours enrolments are none the less quite considerable.

In 1972 there were 10 915 students of geography registered in 52 universities and colleges of advanced technology, including all the major institutions. Of these, the largest group comprised 5865 (or 53 per cent) of the total, taking single honours degrees. However, an appreciable number, 1488 (13·6 per cent), were in joint honours degrees, and this proportion appeared to be increasing rapidly. The remainder were general students. Departments graduating approximately 100 honours students each (in single and/or joint honours degrees) were Aberystwyth, Cambridge, Durham, Leeds, Sheffield, and Swansea. Those conferring degrees on about 75 were Birmingham, Exeter, Liverpool, Manchester, Newcastle, Oxford, and University College London. Departments with a total of 350 or more undergraduates enrolled were Aberdeen, Edinburgh, Durham, Glasgow, Leicester, Queen's Belfast, Sheffield and Swansea. In terms of postgraduate enrolments the largest departments were, in order, the London School of Economics 84, Birkbeck 64, Hull 59, University College London 51, Edinburgh 50.

Most departments offer two to four joint honours degrees. The chief combinations are geography with history in 14 departments, with geology 10, mathematics 9, botany 8, economics 8, sociology 6, and planning 6. Indicative of modern trends are combinations with statistics 3, psychology 3, regional science 3, and cybernetics 1.

Although most departments are members of several faculties, many of them receive their budget and register most of their students in one particular faculty. Only 30 per cent reported themselves to be mainly in arts faculties (even if 68 per cent were represented in arts). More departments are being centred in science faculties, 44 per cent, and in fairly recently developed faculties of social science or social studies, 22 per cent; 4 per cent were located in newly-created faculties of environmental studies.

Quite a number of departments are formally linked with other departments in sub-faculties or schools. Others have an active part in centres specializing in area studies. These trends would appear to be growing. Schools of earth sciences included two departments; of ecological sciences (including environmental sciences based on the natural sciences) six; of the built environment (including social studies) five; of planning (including architectural studies, landscape, and regional science) six; and of transportation, two. Area studies are well developed in Britain. Indeed, perhaps this is the way in which regional geography is now taught, except that in the area-studies curricula geography is more often concerned with the general problems of areas than with the recognition of regional divisions. Irish, Scottish, and Welsh studies are represented by single departments, African studies by five departments, Asian by eight, American (including Latin-American) by twelve, and European (including the Soviet Union) by eleven departments. Lecturers from these departments frequently go out to the countries concerned, while research students and lecturers from abroad come to Britain, greatly enriching our geographical experience. Most area-studies programmes link geography with economics, social anthropology, languages and literature, making wide connections for the subject.

Although British departments are on the whole broadly-based and try to provide a balanced curriculum, yet 'general' and 'regional' geography are less developed

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than 'systematic' geography. All departments teach systematic geography, supported by quantitative methods, but 24 per cent claim to have given up the teaching of regional geography. Each department emphasizes certain fields. Some of the 'special fields' are in fact common to most of the departments, others are unique. The three leading British fields of interest, in terms of teaching and/or research, are geomorphology (mentioned by 45 per cent of all departments), historical geography (41 per cent), and urban geography (40 per cent). Indeed for many departments these are the only three specialisms given any stress. Other special fields are biogeography (30 per cent of all departments), transportation (20 per cent), and settlement and population (20 per cent). Indicative of current trends, perhaps, are development studies (including developing countries) 10 per cent, quantitative techniques (10 per cent), cartography and survey (10 per cent), resource management (8 per cent), applied geography (5 per cent), and perception geography (5 per cent). Computer mapping, geochemistry, lunar geography and medical geography are other interesting pointers to how and where geographical research is being applied.

There has been a virtual explosion in the number of 'option courses' put on in the final honours year, to enable students to develop special interests and aptitudes, though it remains true that the British honours degree still continues to be a broadly based one. Practically every member of staff now offers his own specialism as an undergraduate option and there is, therefore, a remarkable and refreshing feed-back from research to teaching. Durham is notable for developments along these lines, offering 21 options: so, too, is Bristol which not only offers a large number of final year options, but provides 'specialized' options after the first year, flanking the 'core' courses of the degree.

Bristol stands out in its emphasis on 'quantitative' methods in geography, building in the quantitative approach to all its courses. Indeed Bristol and Cambridge, it has been suggested, are the poles of the 'quantitative axis' in British geography (Whitehand, 1970, 1971) though there are extensions to Reading and London in the south and to Liverpool and Hull in the north. Yet, though the 'quantitative revolution' has swept British geography, there is still a good deal of emphasis on the quality of description with which British geography tries to portray regions and landscapes.

It is noteworthy that major new growth points in British geography, such as quantitative methods, environmental science, and perception studies are being developed at the polytechnics and the colleges of advanced technology: this is particularly true of those at Cambridge, Hendon, Kingston, London, and Portsmouth.

Postgraduate activity is generally well represented, except in some of the colleges of advanced technology. The total number of postgraduate students enrolled in 1972 was 950. Of these 425 or nearly 45 per cent were PhD students; the rest had registered for master's degrees or had been registered, simply, as research students, presumably qualifying for either a master's degree or a doctorate. The prevailing British tradition is still to vest the degree at both the master's and the doctoral level in a thesis. Twenty four per cent of the departments award a higher degree on the basis of a thesis only, another 34 per cent admit to a PhD by thesis alone, but require course work together with a dissertation for a master's degree. Ten per cent do stress course work at the master's level, but still demand a dissertation. No department admits to giving a degree solely through course work.

The annual publication of the titles of masters' and doctoral theses gives a very good indication of the trends in British geography. Over the last four years there

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has been a lessening in regional theses, with by far the greatest work being done in the systematic field. Here, urban geography, historical geography (generally related to settlement), land-use studies, and geomorphology are predominant. Certain fields show a steep rise in activity, including applied geography, cultural geography, environmental analysis, hydrology, pollution studies, population, regional science, and soil studies. Perhaps the most rapidly expanding interest is the concern with 'perception geography'.

In conclusion, it may be said that judging by curricula and enrolment, as well as by the evidence given earlier in this report, British geography is still showing marked expansion: all the established departments are growing to become among the largest in their faculties, new departments have sprung up in the majority (though not as yet in all) of the new universities, and there has been a vigorous growth in the polytechnics, the colleges of advanced technology and the colleges of education. The emphasis continues to be on undergraduate honours degrees, but there has been a great development of postgraduate work. Systematic geography based on quantitative methods now leads the field but involvement in regions is still kept very much alive, though in systematic terms, in area studies. As well as covering the main aspects of the subject, Britain is actively exploring new frontiers of geographical thought.

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